READY

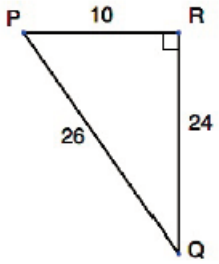
Topic: Finding the trigonometric ratios in a right triangle

Use the given measures on the triangles to write the indicated trig value.

1. $\sin P = \frac{12}{13}$

   $\cos P = \frac{5}{13}$

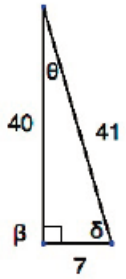
   $\tan P = \frac{12}{5}$



2. $\sin \theta = \frac{7}{41}$

   $\cos \theta = \frac{40}{41}$

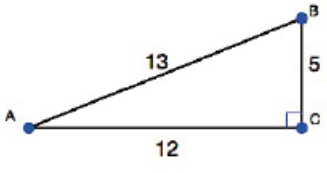
   $\tan \theta = \frac{7}{40}$



3. $\sin B = \frac{12}{13}$

   $\cos B = \frac{5}{13}$

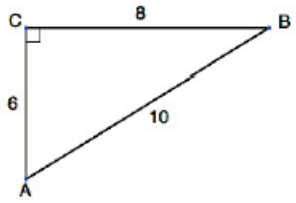
   $\tan B = \frac{12}{5}$



4. $\sin A = \frac{4}{5}$

   $\cos A = \frac{3}{5}$

   $\tan A = \frac{4}{3}$

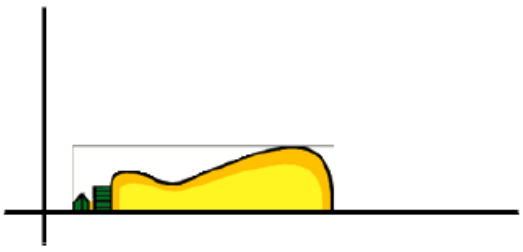


SET

Topic: Drawing solids of revolution

For each of the following solids, draw the two-dimensional shape that would be revolved about the x-axis to generate it.

5.



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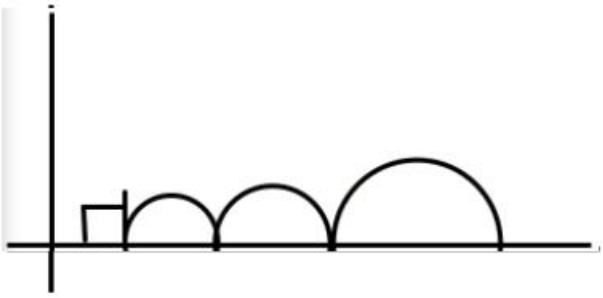

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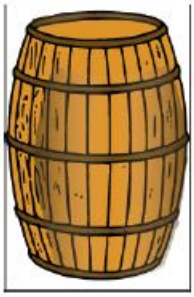
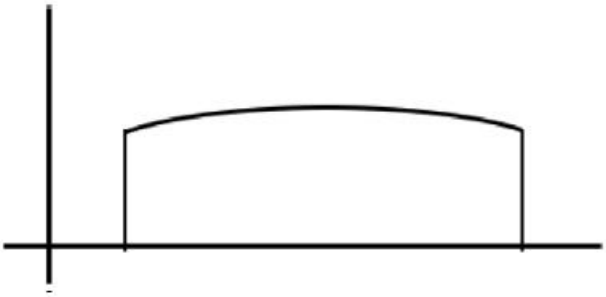
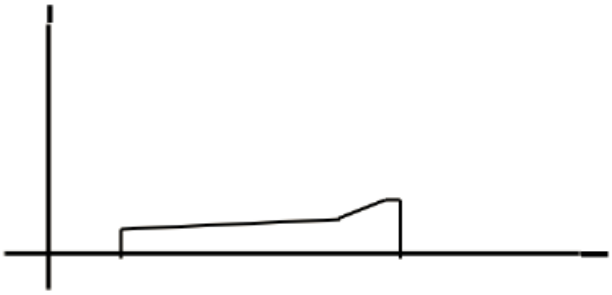




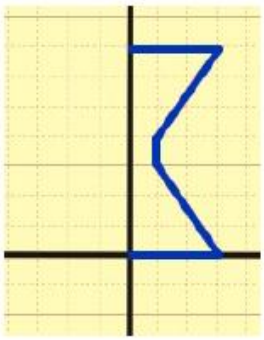
8.



9. Name something in your house that would be shaped like the solid of revolution formed, if the figure on the right were rotated about the x-axis.

Answers will vary. Examples: Roll of paper towels, oatmeal container, etc.

10. Name something in the world that would be shaped like the solid of revolution formed if the figure on the right were rotated about the y-axis.



Answers will vary. Examples: Hour glass, spool, etc.

GO

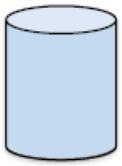
Topic: Using formulas to find the volume of a solid

Find the volume of the indicated solid.

11. $V = \pi r^2 h$ *cylinder*

$r =$ 3 inches

$h =$ 10 inches

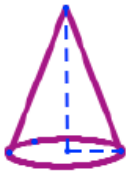


Answer: $90\pi \approx 282.6\ in^3$

12. $V = \frac{1}{3}BH$ *right circular cone*

$r = 8\ cm$

$H = 20\ cm$



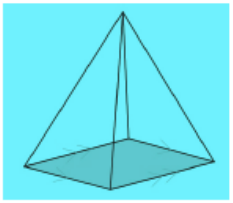
Answer: $426\frac{2}{3}\pi \approx 1339.73\ in^3$

13. $V = \frac{1}{3}l^2 h$ *square pyramid*

$h = \frac{5\sqrt{2}}{2}\ m$

$l = 3\sqrt{5}\ m$

The base is a square.



Answer: $V \approx 53.03\ m^3$

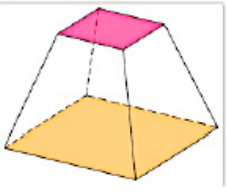
14. $V = \frac{1}{3}h(a^2 + ab + b^2)$ *square frustum*

Where a and b are the base and top side lengths and h is the height

$h = 12\ in$

$a = 5\sqrt{7}\ in$

$b = 2\sqrt{7}\ in$



Answer: $1092\ in^3$